



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,928	03/12/2004	Alexander Tregub	10559-895001	6844
20985	7590	12/13/2006	EXAMINER	
FISH & RICHARDSON, PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			NUTTER, NATHAN M	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 12/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/799,928

Applicant(s)

TREGUB ET AL.

Examiner

Nathan M. Nutter

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 37-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 37-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>08-06, 10-06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

In response to the amendment filed 24 October 2006, the following is placed in effect.

The objection to the disclosure is hereby expressly withdrawn.

Claim Interpretations

The claims recite a "co-polymer" and defines a polymer blend, i.e. a combination in admixture of two polymers. The concept of copolymer is art-recognized to mean a polymer that is composed of two different monomer units polymerized together. A mixture of two polymers is a blend, not a "co-polymer."

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 38 and 43-46 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The Specification fails to teach what may be embraced by the term "cyclic

Art Unit: 1711

fluorocarbon oxygen-containing polymer." The term is deemed to embrace vast numbers of polymers that may or may not be employed or even employable in the present invention since they may vary in such broad aspects as melting point, intrinsic viscosity, modality, etc.. The term only requires the polymer to contain oxygen and have cyclic form. The oxygen is not stipulated as being in or of the cycle, or cycles, since there may be polycyclic or bridged units. No examples of what are deemed to be "cyclic fluorocarbon oxygen-containing polymers" are provided. To determine such would require the undue burden of experimentation on the part of the practitioner to make and/or use the invention. No details are provided as to any aspect including structure other than "amorphous," which is not deemed to be sufficient to define the polymer composition.

The recitation of "the **co-polymer** (sic) is surface modified" is not supported by the instant Specification. Copolymers are not, per se, surface modified. They may have grafted moieties, may be hydrogenated, etc. but not on the "surface" thereof.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 37-46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 1711

The recitation of the term "co-polymer" is deemed to be in derogation of the art accepted meaning for the term, as pointed out above. As such, the claims are deemed to be vague and confusing.

The recitation of "the **co-polymer** (sic) is surface modified" is deemed to be vague and confusing. Copolymers are not, per se, surface modified. They may have grafted moieties, may be hydrogenated, etc. but not on the "surface" thereof.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 37-45 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by McCarthy et al (US 5,880,204).

The blend of a polyvinylidene fluoride with an amorphous "cyclic fluorocarbon oxygen-containing polymer" is shown at column 4 (lines 16-39) for the PVdF and column 5 (lines 13-15) for perfluorodioxoles. At column 2 (lines 31-43) the reference teaches the production of films.

The subsequent use as a film is shown. The choice of application of that film is not relevant to the patentability of the claims. further, the recitation in claim 10 of "a thin membrane having optical transmission" is not deemed to present any patentable weight to the claims since the property is deemed to be inherent to the composition. This is

Art Unit: 1711

buttressed by the fact that the claims do not recite any parameters that may be indicative to produce such optical transmission.”

Response to Arguments

Applicant's arguments filed 24 October 2006 have been fully considered but they are not persuasive.

With regard to the rejection of claims 38 and 43-46 under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement, it is pointed out that the severe deficiencies of description concerning the “cyclic fluorocarbon oxygen-containing polymer” clearly fail to illuminate one having an ordinary skill in the art as to what is being claimed without the undue burden of experimentation based solely on the myriad possibilities that such a broad recitation provides. It is undue for the skilled artisan to determine where the oxygen atom might reside, either in the cyclic segment, a linear segment, as a carboxy group, an acyl group, etc..

With regard to the rejection of claims 37-46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, it is pointed out that the definition accepted, not in the chemical arts alone, but in the laity, as well, for the term copolymer indicates a single polymer that comprises two (or more) distinct

Art Unit: 1711

monomers. See the citations to each of Hawley's Condensed Chemical Dictionary at page 297, Webster's II New Riverside University Dictionary at page 310, and Organic Chemistry, Allinger at page 674. Monomers are not recited in the claims, only polymers. If applicants contend so, the claims will be deemed to be vague and confusing under the second paragraph of 35 U.S.C. 112 since the claims only recite polymers being claimed together, not copolymers of VDF with any other monomers or any monomers employed to produce the "amorphous fluoropolymer." It is pointed out to applicants that the passages at paragraphs [0022]-[0024] do not support applicants' contentions. Neither of paragraphs [0022] through [0024] mention monomers at all. Paragraphs [0022] and [0024] only disclose polymers. Paragraph [0023], which is poorly written, discusses the PVDF polymer, but does not discuss an amorphous polymer. Since applicants contend the term 'co-polymer' is not used in derogation of its accepted meaning, applicants' claims would necessarily recite the monomers contemplated for such "co-polymer." However, the claims recite the inclusion, in no particular arrangement, physical or otherwise, of two polymers, a "PVDF and an amorphous fluoropolymer." With regards to applicants' reference to paragraph [0030] as showing what "surface-modified copolymers" comprise, nothing in paragraph [0030] is drawn to a structure showing such modification, a reaction to produce such modification, or any other evidence that the copolymer is "surface-modified." It appears applicants intend a film or coating of the polymer may be surface-modified; otherwise, applicants are requested to explain the structure, reactions or other features that determine what the recitation means or embraces.

Art Unit: 1711

With regard to the rejection of claims 37-45 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by McCarthy et al (US 5,880,204), it is pointed out that the claims recite a "co-polymer comprising PVDF and an amorphous fluoropolymer." The claims do not recite any particular arrangement, structure, or other relationship other than their inclusion together. Applicants have failed to show any difference in scope between the disclosed composition and that instantly claimed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

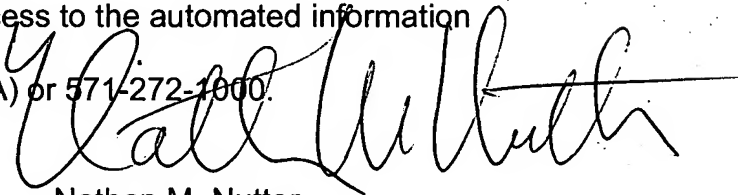
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan M. Nutter whose telephone number is 571-272-1076. The examiner can normally be reached on 9:30 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 571-272-1078. The fax phone

Art Unit: 1711

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Nathan M. Nutter
Primary Examiner
Art Unit 1711

nmn

8 December 2006